

# CHEM-POLYATOMIC IONS/ACIDS+BASES

CYANIDE -  $\text{CN}^-$

DIHYDROGENPHOSPHATE -  $\text{H}_2\text{PO}_4^-$

ETHANOATE (ACETATE) -  $\text{CH}_3\text{COO}^-$

HYDROGENCARBONATE -  $\text{HCO}_3^-$

HYDROGENSULFATE -  $\text{HSO}_4^-$

HYDROXIDE -  $\text{OH}^-$

NITRATE -  $\text{NO}_3^-$

NITRITE -  $\text{NO}_2^-$

PERMANGANATE -  $\text{MnO}_4^-$

CARBONATE -  $\text{CO}_3^{2-}$

CHROMATE -  $\text{CrO}_4^{2-}$

DICHROMATE -  $\text{Cr}_2\text{O}_7^{2-}$

HYDROGENPHOSPHATE -  $\text{HPO}_4^{2-}$

OXALATE -  $\text{C}_2\text{O}_4^{2-}$

SULFATE -  $\text{SO}_4^{2-}$

SULFIDE -  $\text{S}^{2-}$

SULFITE -  $\text{SO}_3^{2-}$

PHOSPHATE -  $\text{PO}_4^{3-}$

AMMONIA -  $\text{NH}_3$

HYDROGEN PEROXIDE -  $\text{H}_2\text{O}_2$

ETHANOIC ACID -  $\text{CH}_3\text{COOH}$

HYDROCHLORIC ACID -  $\text{HCl}$

NITRIC ACID -  $\text{HNO}_3$

CARBONIC ACID -  $\text{H}_2\text{CO}_3$

SULFURIC ACID -  $\text{H}_2\text{SO}_4$

SULFUROUS ACID -  $\text{H}_2\text{SO}_3$

PHOSPHORIC ACID -  $\text{H}_3\text{PO}_4$

AMMONIUM -  $\text{NH}_4^+$

## STRONG ACIDS

HYDROCHLORIC ACID -  $\text{HCl}$

SULFURIC ACID -  $\text{H}_2\text{SO}_4$

NITRIC ACID -  $\text{HNO}_3$

## WEAK ACIDS

ACETIC ACID/ETHANOIC ACID -  $\text{CH}_3\text{COOH}$

PHOSPHORIC ACID -  $\text{H}_3\text{PO}_4$

CARBONIC ACID -  $\text{H}_2\text{CO}_3$

## STRONG BASES

group 1 and 2 HYDROXIDES

e.g.  $\text{NaOH}$

## WEAK BASES

AMMONIA -  $\text{NH}_3$

SODIUM CARBONATE -  $\text{Na}_2\text{CO}_3$

$\text{HCl} \rightarrow \text{H}^+ + \text{Cl}^-$  strong acid

$\text{H}_2\text{CO}_3 \rightleftharpoons \text{H}^+ + \text{HCO}_3^-$  weak acid

$\text{NaOH} \rightarrow \text{Na}^+ + \text{OH}^-$  strong base

$\text{NH}_3 + \text{H}_2\text{O} \rightleftharpoons \text{NH}_4^+ + \text{OH}^-$  weak base